

# IUU150 SERIES

## 150W U-bracket Switching Power Supplies For Industrial Equipment

### Description:

The IUU150 series of compact, open frame constructed, AC/DC switching mode power supplies provide 150 Watts of continuous output power. They are suited for use in based systems, portable equipments and many other applications. All models meet FCC Part-15 class B and CISPR-22 class B emission Limits and are designed to comply with UL/c-UL(UL 60950-1) ,TUV/Bauart(EN 60950-1) and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Input Voltage 90 to 260 VAC, 47 to 63 Hz
- Internal EMI filter
- Single Output
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal
- Input Surge Current and Over Load protection
- Over Voltage Protection (Crowbar Design)
- Active Power Factor Correction
- Power Fail Detect(Optional)
- Class I
- Synchronous Rectification
- Operating temperature -20~70°C
- 3 year warranty

### Safety Approvals :



### Electrical Characteristics:

| Sym.  | Parameter                     | Test Conditions                            | Min.             | Typ. | Max. | Unit |
|-------|-------------------------------|--------------------------------------------|------------------|------|------|------|
| Vin   | Input Voltage                 | Operating Voltage                          | 90               |      | 260  | VAC  |
| fin   | Input Frequency               |                                            | 47               |      | 63   | Hz   |
| PF    | Power Factor Correction       | Io=Full load, Vin=90~260VAC                | 0.95             | 0.97 | 1.0  |      |
| Po    | Output Power Range            | Vin=90 to 260 VAC                          | 0                |      | 150  | W    |
| Vo    | Output Voltage Range          |                                            | See rating Chart |      |      | V    |
| Io    | Output Current Range          |                                            | See rating Chart |      |      | A    |
| Iil   | Input Current (Low Line)      | Io=Full load, Vin=115VAC                   |                  |      | 2.0  | A    |
| Iih   | Input Current (High Line)     | Io=Full load, Vin=230VAC                   |                  |      | 0.8  | A    |
| Irl   | Low Line Inrush Current       | Io=Full load, 25°C, Cool start, Vin=115VAC |                  | 48   | 54   | A    |
| Irhl  | High Line Inrush Current      | Io=Full load, 25°C, Cool start, Vin=230VAC |                  | 58   | 63   | A    |
| Eff   | Efficiency                    | Io=Full load, Vin=230VAC                   | 85               | 88   | 90   | %    |
| REG-i | Line Regulation               | Io=Full load                               |                  | 0.5  | 1    | %    |
| REG-o | Load Regulation               | Vin=230VAC                                 |                  | 3    | 5    | %    |
| OVP   | Over Voltage Protection       |                                            | 112              |      | 132  | %    |
| OCP   | Over Current Protection       |                                            | 110              |      | 150  | %    |
| Ttr   | Time of Transient Response    | Io=Full load to Half Load, Vin=100VAC      |                  |      | 4    | mS   |
| Thold | Hold-Up Time                  | Io=Full load, Vin=110VAC                   | 16               |      |      | mS   |
| Ts    | Start Up Time                 | Io=Full load, Vin=100VAC                   | 0.3              | 1    | 2    | S    |
| Vp-p  | Ripple & Noise (Peak to Peak) | Full load, Vin=90VAC                       |                  | 0.5  | 1    | %    |
| Ilk   | Safety Ground Leakage Current | Io=Full load, Vin=240VAC                   |                  | 0.5  | 0.75 | mA   |
| TC    | Temperature Coefficient       | All output                                 | -0.04            |      | 0.04 | %/°C |

### Environmental :

| Sym.  | Parameter                                                   | Test Conditions | Min. | Typ. | Max. | Unit |
|-------|-------------------------------------------------------------|-----------------|------|------|------|------|
| Toper | Operating Temperature                                       |                 | -20  |      | 70   | °C   |
| Tstg  | Storage Temperature                                         |                 | -40  |      | 85   | °C   |
| Hr    | Relative Humidity                                           |                 | 5    |      | 95   | %    |
| MTBF  | Operating Temperature at 25°C, Calculated per MIL-HDBK-217F |                 | 0.1M |      |      | Hrs  |
| Pd    | Derate linearly from 100% load at 50°C to 50% load at 70°C  |                 |      |      |      |      |

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Safety Specifications:

| Sym.  | Parameter                                                | Test Conditions      | Min. | Typ. | Max. | Unit  |
|-------|----------------------------------------------------------|----------------------|------|------|------|-------|
| Vps   | Dielectric Withstanding Voltage for Primary to secondary | Primary to secondary | 4242 |      |      | VDC   |
| Vpg   | Dielectric Withstanding Voltage for Primary to Ground    | Primary to ground    | 2121 |      |      | VDC   |
| Ris   | Isolation Resistance                                     | Test Voltage=500VDC  | 50   |      |      | MΩ    |
| CISPR | EMI requirements for CISPR-22                            | Vin=220VAC           | B    |      |      | CLASS |
| FCC   | EMI requirements for FCC PART-15                         | Vin=110VAC           | B    |      |      | CLASS |

Output Voltage And Current Rating Chart (Single Output) :

| Model Number | Output Voltage | Output Current | Total Regulation | Maximum Output Power |
|--------------|----------------|----------------|------------------|----------------------|
| IUU150-104   | 9 VDC          | 16.0 A         | 5%               | 144W                 |
| IUU150-105   | 12 VDC         | 12.5 A         | 5%               | 150W                 |
| IUU150-106   | 15 VDC         | 10.0 A         | 5%               | 150W                 |
| IUU150-107   | 18 VDC         | 8.33 A         | 4%               | 150W                 |
| IUU150-108   | 24 VDC         | 6.25 A         | 3%               | 150W                 |
| IUU150-109   | 30 VDC         | 5.00 A         | 2%               | 150W                 |
| IUU150-110   | 36 VDC         | 4.17 A         | 2%               | 150W                 |
| IUU150-111   | 48 VDC         | 3.13 A         | 2%               | 150W                 |

PIN CHART

| PIN        | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13         |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| MODEL      | OUT | OUT | OUT | OUT | OUT | RTN | RTN | RTN | RTN | RTN | RTN | RTN | (Optional) |
| IUU150-1XX | OUT | OUT | OUT | OUT | OUT | RTN | RTN | RTN | RTN | RTN | RTN | RTN | PFD        |

- Note:
- 1. Dimensions are shown in mm .
  - 2. Weight: 560gs approx.
  - 3. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
  - 4. Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.

Mechanical Specifications :

